Diagram for ICT penetration in Libya and other countries:

Basic education in Libya is well developed and literacy levels are among the highest in the Arab region. However, current education does not provide a "job-ready" work force because the education system is disconnected from the demands of the job market. Previous education policy decisions are having a negative effect in important areas for business such as IT and foreign languages. Also continuous professional development is almost non-existent (i.e. during its isolation Libya’s doctors could not update themselves on developments in international healthcare on an ongoing basis (Kenan, 2009)).

Barriers of successful e-learning implementation in HE in Libya:

E-learning is still in its early years in Libya, at the stage of attempting to implement E-learning case studies. Although initial introduction of the E-learning opportunities in HEIs seems to be successful, there are still many challenges. Those that might prevent the general adoption of E-learning. Al-badree (2007) divides them in three categories: Technological barriers; Cultural barriers and other issues.

In 2009; there is a questionnaire is established about these barriers and the results were as following: the respondents were asked what they considered was the major barrier to the implementation of E-learning in Libya. In order of frequency the respondents saw the barriers to the implementation of E-learning in Libya as: technological, mismanagement, cultural and "others".

Recommendations for improving the e-learning implementation in Libyan HE institutions:

Firstly: Recommendations for factors that affect learner (students’ and instructors’) proficiencies

- Assess learners’ computer skills before they enrol for an E-learning course; course content should be designed to suit learning styles.
- E-learning course content should meet the requirement of National Qualifications Framework (NQF) and Libyan Qualifications Authorities (LQA) and should be continually revised and updated.
- HE Institutions should hire an adequate number of support staff to be responsible for administrative duties and take this heavy burden away from academic staff.
- Instructors should let learners know their availability schedule so that learners can know when to expect a response from an instructor. Additional staff members should be provided for support.
- Course content should be made available in different languages that will make learning easier for learners. In Libya, there is two official languages (Arabic and English).
- For E-learning to be successful in Libya, mindsets and attitudes towards learning of such diverse learners should be taken into consideration. There are learners from rich areas (such as Tripoli) and suburban areas who have third world experiences and never saw or used a computer until they reach HE.

Secondary: Recommendations for institution in implementation of policies

- Senior managers should declare their support for E-learning implementation and allocate a fixed budget
- Training should be offered to instructors and course developers so that they can be more familiar with learning management systems and updated on changes to software and hardware.
- Technological learning tools should be maintained and kept up to date at all times.
- The issue of intellectual property, ownership and copyright should be addressed with course developers avoiding unnecessary battles over learning materials. HE Institutions should have agreements and sign contracts with teaching and development staff on intellectual property, ownership and copyright.

History of e-learning:

The aim of TELDAP is to make e-learning and digital archives available and accessible to the general public, moving towards the establishment of a knowledge society, with the ultimate goal of strengthening national competitiveness. The main objectives are to promote the application of technologies and digital contents in cultural, academic, socioeconomic and educational development; improve the use of e-learning in formal education and lifelong learning and promote international cooperation network for e-learning.

Evaluation of ICT gap in Libya:

The Libyan business executive survey/global competitiveness report (LBES/GCR) ranks Libya 97th out of 111 countries in university/industry research collaboration (Porter & Yergin, 2006). However, there is agreement among a number of Libyan educators that students on postgraduate programmes in Libyan universities encountered the following difficulties:

- Absence of a plan for building the human cadre needed by society
- Absence of effective administration
- Lack of staff development Libyan HE

It is only recently that structured staff development has become available to academic staff; Shortage of research activities in science and engineering in Libyan HEIs due the lack of necessary facilities.

Investigation of e-learning implementation in HE institutions in Libya

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Figure(1): Comparison of ICT penetration in Libya with neighboring countries (Porter and Yergin, 2006)

Figure(3): Barriers to E-learning in Libya (Kenan, 2009)

History of e-learning:

The History of e-Learning from 1995 to 2010, according to TELDAP history study.

Figure(2): showing the development stages of Taiwan E-learning and Digital Archives Program

Figure(3): showing the development stages of Taiwan E-learning and Digital Archives Program

Figure(3): Higher education institutions in Libya (R hints & Miliszewska, 2010).